

Reptilia, Squamata, Iguanidae, *Enyalioides touzeti* Torres-Carvajal, Almendáriz, Valencia, Yañez-Muñoz and Reyes, 2008: Distribution extension and first country record for Peru

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ABSTRACT: The current article provides the first country record of *Enyalioides touzeti* in Peru. This new record extends the known species distribution ca. 52 Km SW from the southernmost record at the Province of El Oro, Ecuador, and increases the number of *Enyalioides* species in Peru to six.

The Neotropical iguanian lizard genus *Enyalioides* Boulenger, 1885 contains eight species known from the lowlands between Panama to Bolivia on both sides of the Andes (Torres-Carvajal *et al.* 2008). The highest diversity of the genus occurs in Ecuador with seven species (Torres-Carvajal *et al.* 2008). In Peru, five species of *Enyalioides* (*E. cofanorum*, *E. laticeps*, *E. microlepis*, *E. palpebralis*, and *E. praestabilis*) have been reported from the Amazon lowlands (Carrillo and Icochea 1995; Duellman and Mendelson III 1995; Wiens and Etheridge 2003; Torres-Carvajal *et al.* 2008). The recently described *Enyalioides touzeti* is known from the Pacific slopes of southern Ecuador (Torres-Carvajal *et al.* 2008). This species, along with *E. heterolepis* and *E. oshaughnessyi*, are the only species that inhabit the Pacific lowlands and western slopes of the Andes (Torres-Carvajal *et al.* 2008).

The Tumbes region on north-western Peru hosts the southernmost populations of several species of amphibians and reptiles which occur from Central America through the Pacific lowlands and western Andean slopes of Colombia and Ecuador (Venegas *et al.* 2008). Tello (1998) presented the most complete herpetological work of the Tumbes region to date; where he reported *Enyalioides microlepis*, a species known only from the upper western Amazon Basin (Torres-Carvajal *et al.* 2008). Given the low probability of this record and since Tello (1998) did not cite voucher specimens, we reviewed his collections deposited at the Museum of Natural History of Universidad Nacional Mayor de San Marcos (MUSM) and at the Museum of Natural History of Universidad Ricardo Palma (URP) in Lima, Peru. We found four specimens of *Enyalioides* (an adult male and three juveniles) identified in the MUSM collection as *E. microlepis* by G. Tello. After thorough revision of the material, we concluded that the four specimens were not *E. microlepis*, but instead *E. touzeti* based on the characters described by Torres-Carvajal *et al.* (2008). Therefore, we formally report the first record of *E. touzeti* in Peru. One adult male (MUSM 17560; Figures 1 and 2) and three

juveniles of *Enyalioides touzeti* (MUSM 17558, 17559, 17561; Figures 3 and 4) were collected in Quebrada Los Naranjos, Parque Nacional Cerros de Amotape, province of Zarumilla, Region of Tumbes (Figure 5), in February 1996 by G. Tello. Additionally, in a recent survey by the Centro de Ornitología y Biodiversidad (CORBIDI) at Parque Nacional Cerros de Amotape, one of us (M. Cuyos), collected a juvenile female of *E. touzeti* (CORBIDI 04517) at the locality of Campo Verde (03°50'34.2"S, 80°12'38.8"W; 740 m) (Figure 5).

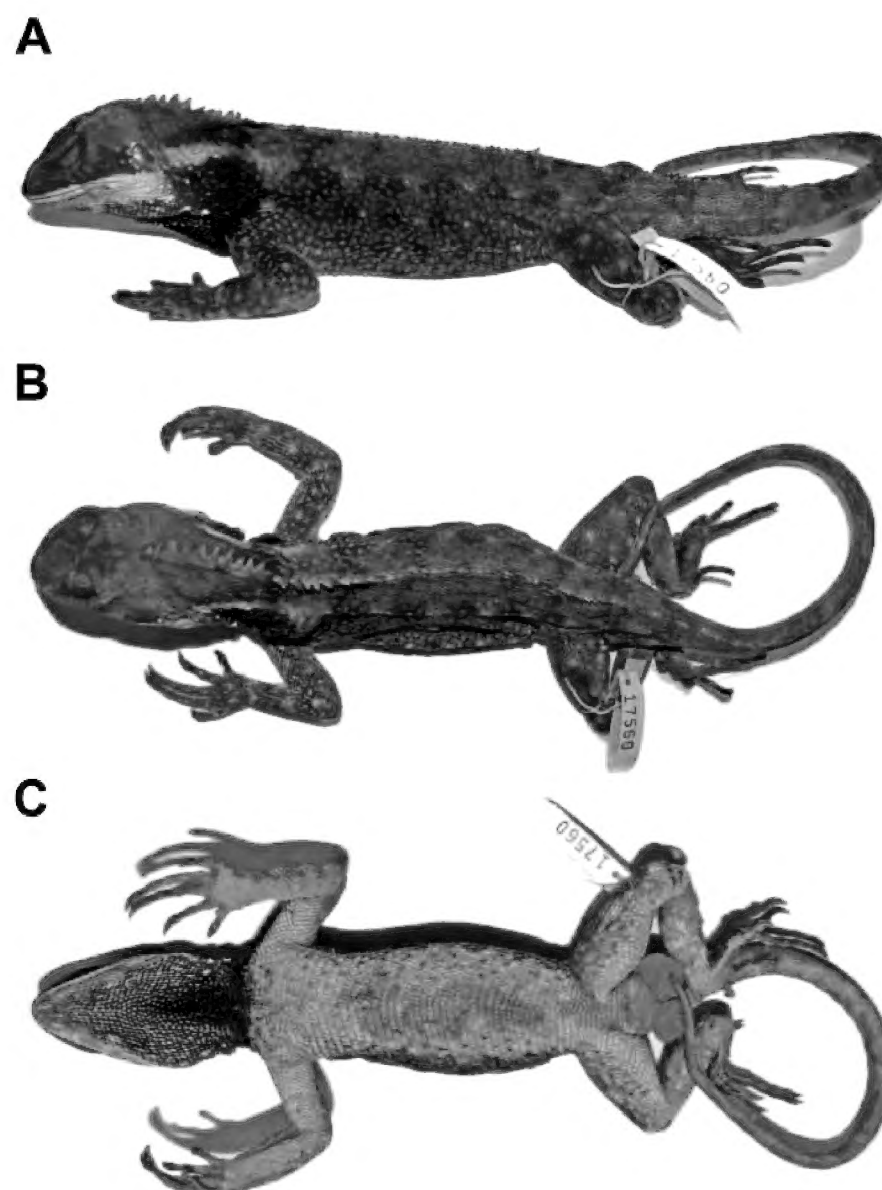


FIGURE 1. Lateral (A), dorsal (B) and ventral (C) views of the adult *Enyalioides touzeti* (MUSM 17560).

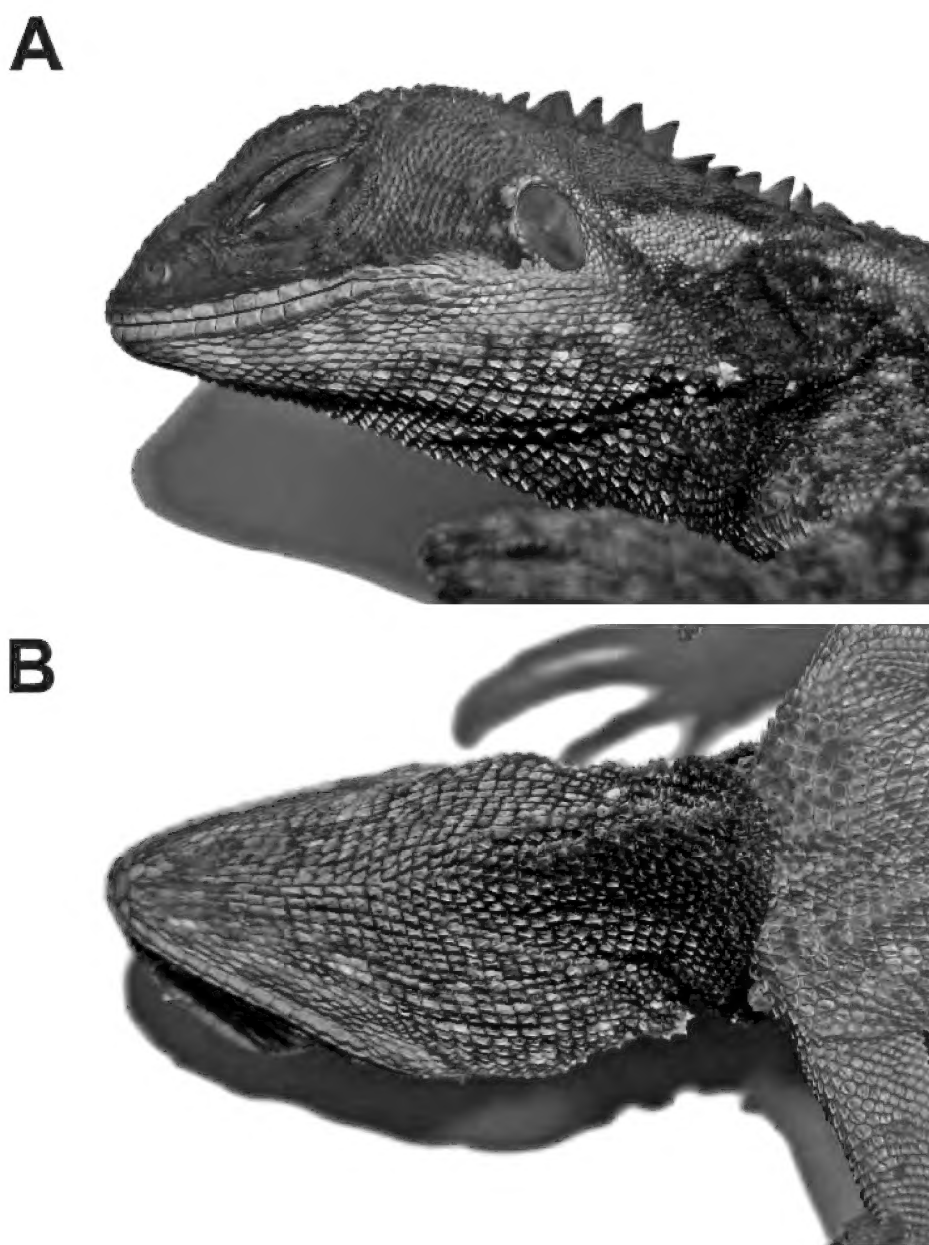


FIGURE 2. Lateral (A) and dorsal (B) views of the head of preserved adult male *Enyalioides touzeti* (MUSM 17560).

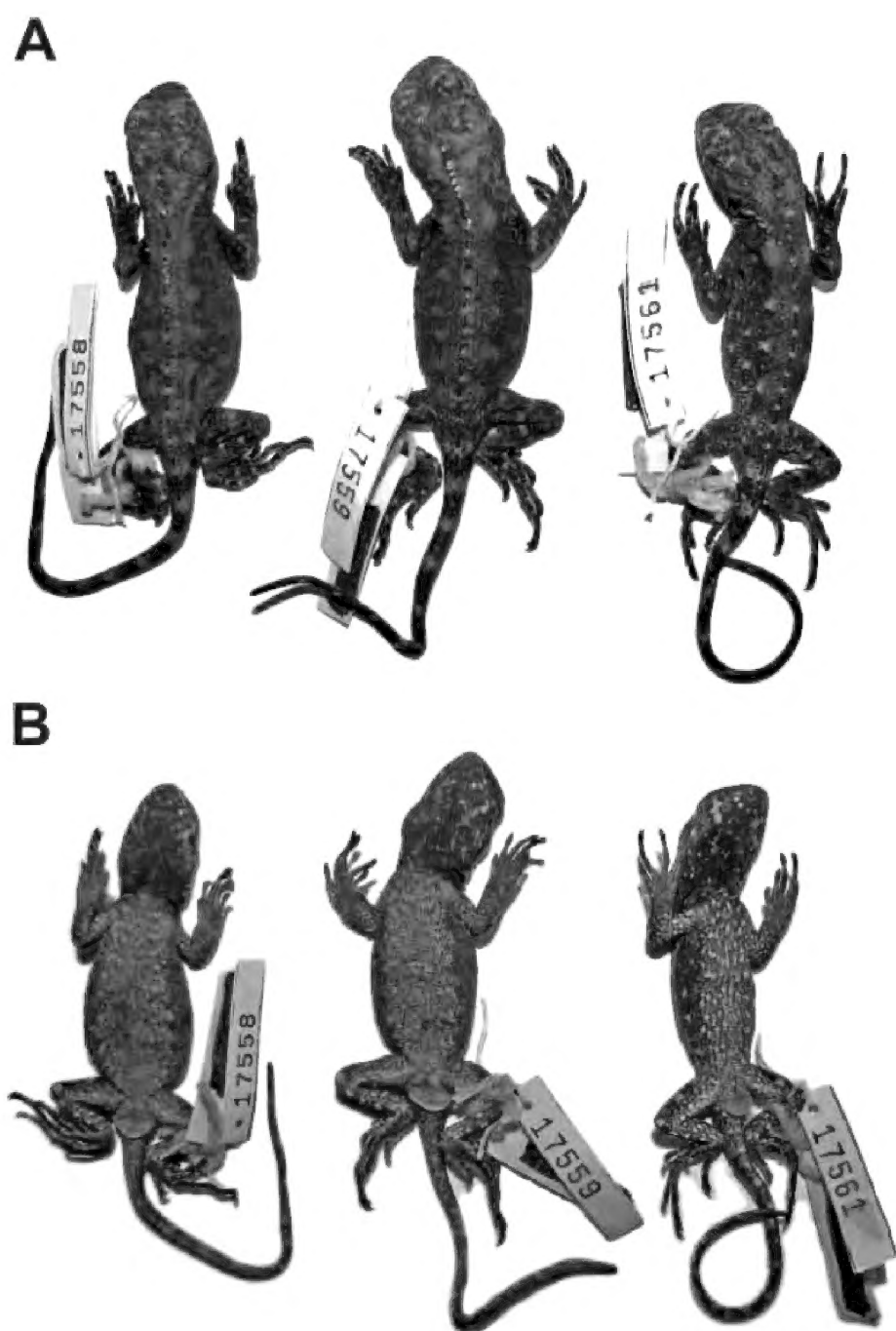


FIGURE 3. Dorsal (A) and ventral (B) views of three juveniles males of *Enyalioides touzeti* (MUSM 17558, 17559, 17561).

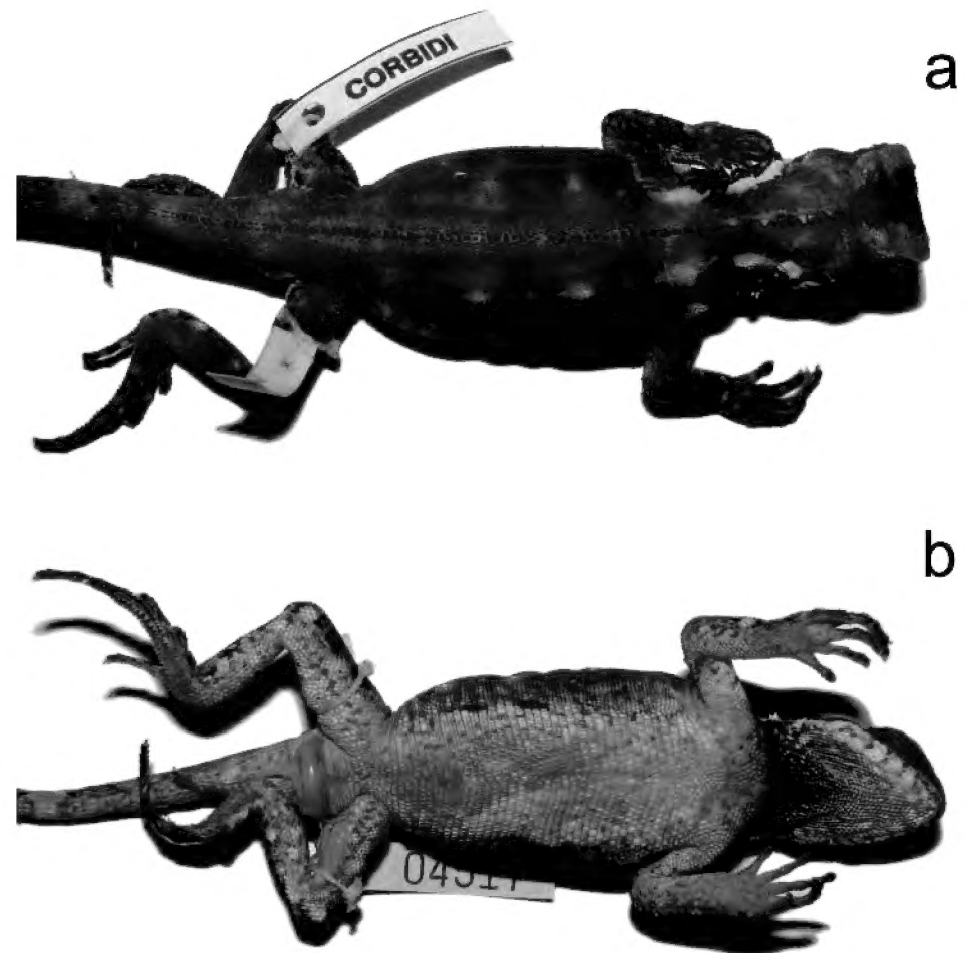


FIGURE 4. Dorsal (A) and ventral (B) views of a juvenile female of *Enyalioides touzeti* (CORBIDI 04517).

The adult male (MUSM 17560, snout-vent length = 136 mm) agrees with the description of *E. touzeti* presented by Torres-Carvajal *et al.* (2008) by having: the body flanks conspicuously folded, small paravertebral scales, each with a conspicuous medial keel, scales on body flanks homogeneous in size, and a black patch covering the majority of the gular surface (Figure 1C and 2 B). Furthermore, the dorsal coloration of the adult specimens (Figure 1A and B) is very similar to the male paratype of *E. touzeti* (EPN 10735) in the original description (see Figure 2B in Torres-Carvajal *et al.* 2008). The life coloration of the juvenile female of *E. touzeti* (CORBIDI 04517, snout-vent length= 82 mm) had reddish brown rhomboidal blotches on a greenish brown background on the dorsum and greenish brown flanks with pale spots; the dorsal surface of the head was reddish brown, the sides of the head greenish brown with a conspicuous labial bar that extends to the neck insertion; the ventral surface is grayish white and the gular region black (Figure 4). Although the shape and order of the scales is difficult to observe in the juvenile specimens, all of these have the black patch covering partially (MUSM 17599, 17558 and CORBIDI 04517) and completely (MUSM 17561) the gular region (Figure 2). These four juvenile *E. touzeti* have a SVL between 48 and 82 mm. Torres-Carvajal *et al.* (2008) describe the life coloration of a juvenile female of the type series of *E. touzeti* and mentioned a white venter without the black patch on the throat and the same ventral coloration for the adult females. However, we found that our juvenile female specimen (CORBIDI 04517) presents a black patch on the throat (Figure 4B). The ventral coloration of the four juvenile specimens (1 female and 3 males) reported in this work (Figure 3B and Figure 4B), suggests that the black throat coloration could be a geographic variation that can be present in females.

Enyalioides touzeti was previously known from the Pacific slopes of the southern Andes of Ecuador, at

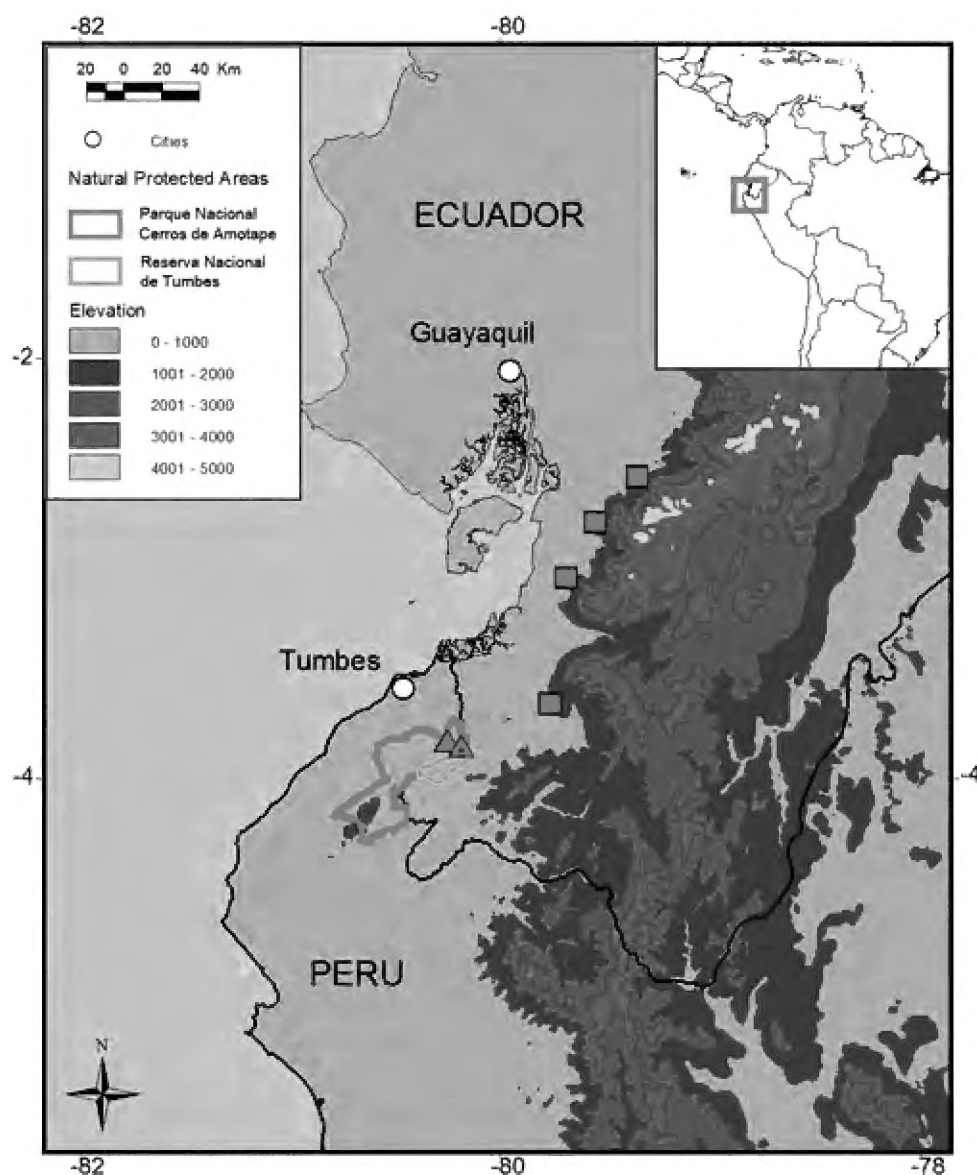


FIGURE 5. Map of south-western Ecuador and north-western Peru showing the general distribution of *Enyalioides touzeti* in the area. Red squares are the four Ecuadorian localities reported by Torres-Carvajal *et al.* (2008). Red triangles correspond to the two new localities reported in this work: plain red triangle stands for Campo Verde and red triangle with inner black spot stands for Quebrada Los Naranjos.

elevations between 300 and 700 m, in the provinces of Azuay, Cañar, and El Oro (Torres-Carvajal *et al.* 2008). These new records extend the known distribution range of *E. touzeti* by approximately 52 Km SW airline (52.2 Km to Quebrada Los Naranjos and 51.8 Km to Campo Verde, Figure 5), and increase the number of species of *Enyalioides* in Peru to six, making Peru the second country in reference to *Enyalioides* diversity in the world (Ecuador: seven species; Peru: six; Colombia: five; Brazil: two; Panama: one; and Bolivia: one) (Torres-Carvajal *et al.* 2008).

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